

# **INTELLIGENT COMBAT OUTPOST (ICO) –RAPTOR**

## **Sensor Requirements & Program Update**

**Mr. Rick Wagner**  
**Development Project Officer**

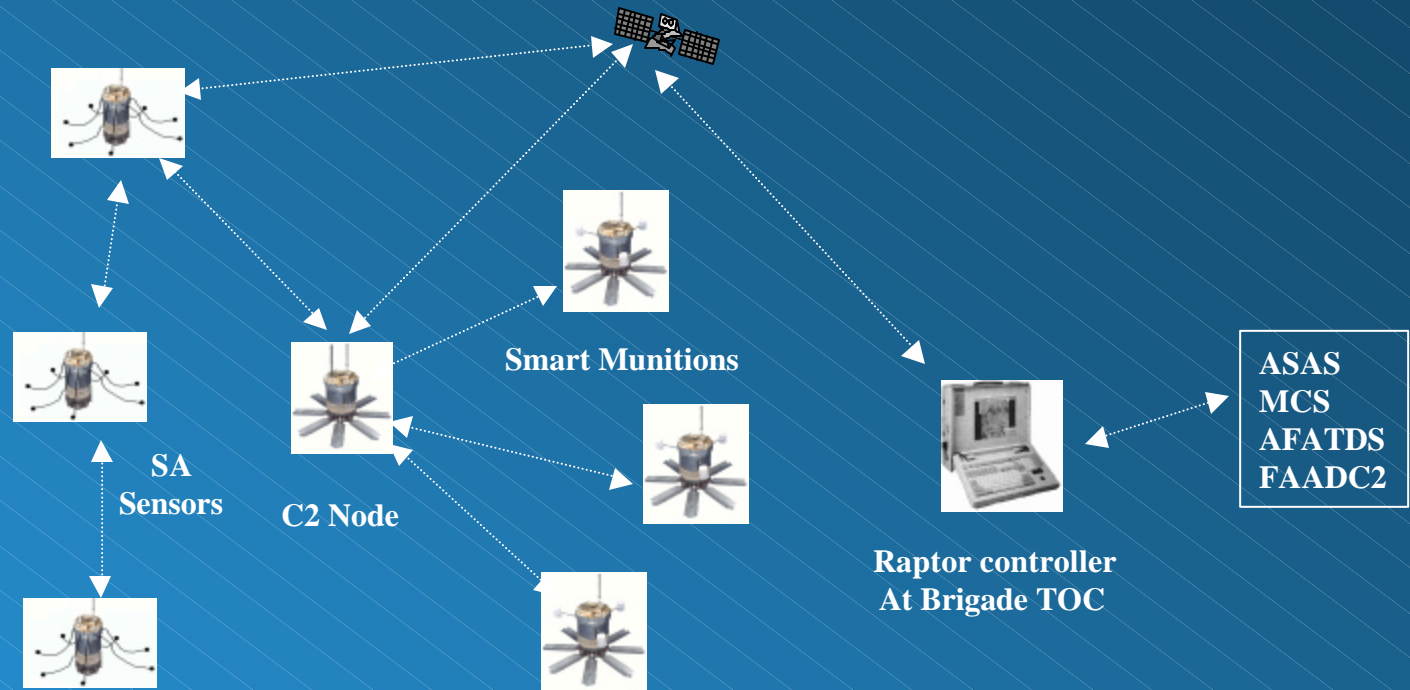
**TACOM Armaments Research Development Engineering Center**  
**ATTN:AMSTA-AR-FSP**

**Picatinny Arsenal, New Jersey 07806-5000**

**Phone: 201 - 724 -7838, FAX: 201 - 724 - 2501, DSN: 880 - 7838**

**E-MAIL: <[rwagner@pica.army.mil](mailto:rwagner@pica.army.mil)>**

# WHAT IS RAPTOR?

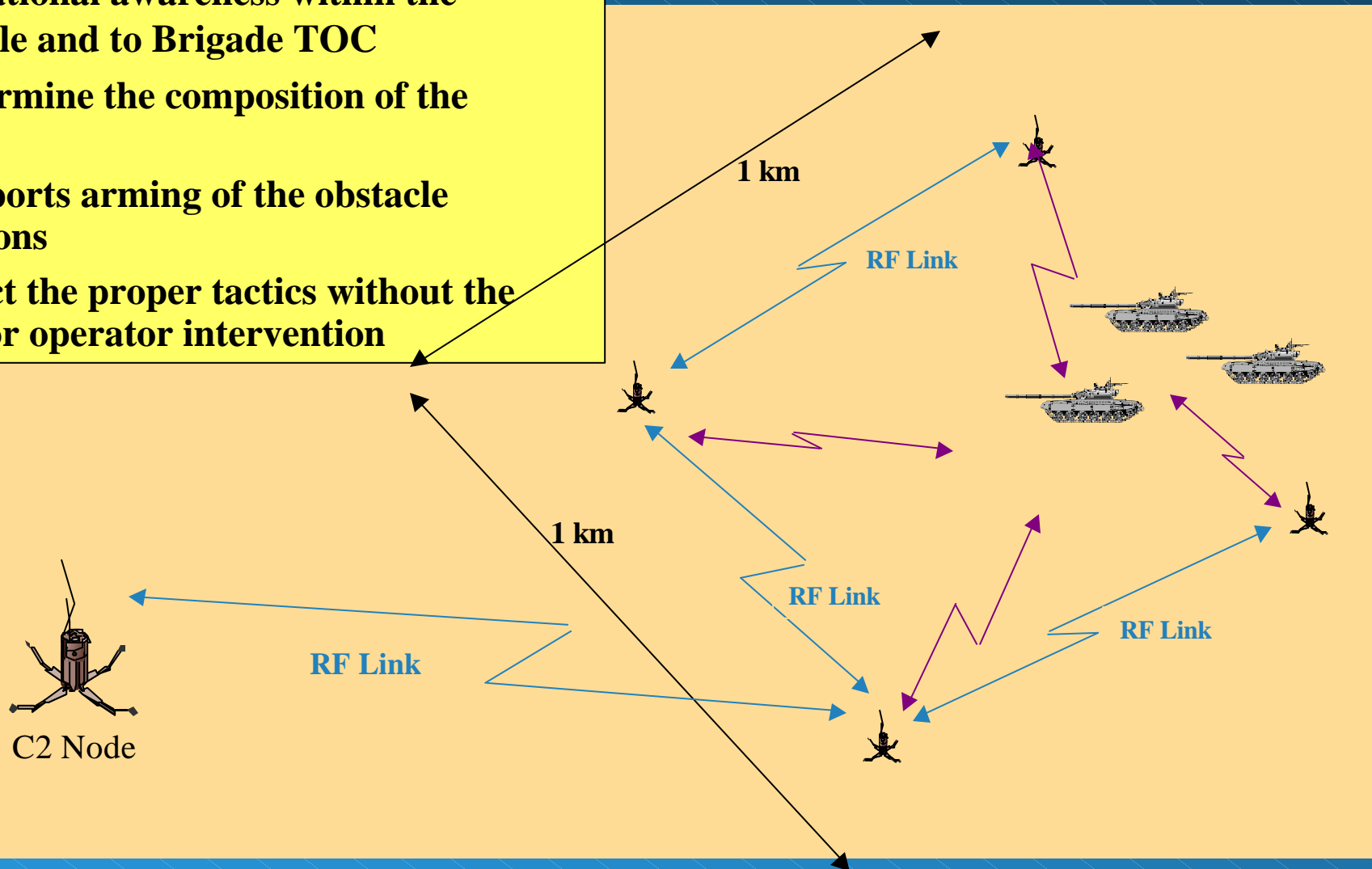


A smart, autonomous, anti-armor/vehicle system which increases the lethality of the lethal, non-lethal and other weapon systems through the synergistic effects of logic controllers, communication nodes and sensors.

# Raptor

## Block I Sensor Requirements

- Situational awareness within the Obstacle and to Brigade TOC
- Determine the composition of the threat.
- Supports arming of the obstacle munitions
- Select the proper tactics without the need for operator intervention



# Raptor

## Block I Sensor Requirements

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- The Raptor system design shall minimize the number of non-munition components utilized in order to minimize preparation time, emplacement time, exposure during emplacement, battlefield logistics, manpower requirements, transportation and storage requirements.
- Probability of Detection. The Raptor system shall autonomously determine the approach of heavy tracked, light tracked and heavy wheeled vehicles 70 percent (with an objective of 90 percent) of the time, as an average among these target classes, when any of these vehicles come within 1 km (with an objective of 4 km) from the center of a designated grid square.

# Raptor

## Block I Sensor Requirements

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- **Probability of Classification.** Given a detection, the Raptor system shall have a 70 percent probability (with an objective of 95 percent) of determining and reporting the above target information for targets that pass within 500m (with an objective of 2 km) of the center of the designated grid square.
- **Tracking.** Track threat vehicle formations as a target providing bearing, speed, direction and vehicle count by classification type
- **Continuous Target Tracking.** It is desired that the Situational Awareness provide 5 minutes (with an objective of 10 minutes) of continuous target tracking to support a fire mission.

# Raptor

## Block I Sensor Requirements

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- Advanced Notice. Given a classification by the Situational Awareness components, the Raptor system shall notify the Advanced Hornet munitions to enable commit to arm and initiate tracking in a maximum of 5 minutes for a target traveling at 50 kph. (See WAM Spec S29315B)
- Personnel. As an objective, the Raptor system shall detect, classify and report the presence of personnel in sufficient time to preclude enemy tampering of the Raptor obstacle components.
- Probability of Detection Against Non-Targets. An individual Raptor Situational Awareness component shall have a 70 percent probability of detecting and reporting the approach of any target or non-target vehicle that comes within a minimum of 50m (with an objective of 500m) from an individual obstacle, to provide notification of a possible pending enemy compromise/tampering.

# Raptor Program Update

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- 5 Nov 01 CBD Announcement requesting White Papers and announcing Industry Day
- 11 Dec 01 Raptor Industry Day (Neptune, NJ)
- 18 Jan 02 White Paper deadline
- 25 Feb 02 White Paper evaluations complete
- 31 May 02
  - Raptor RFP issued
  - 4 Purchase Orders issued to White Paper winners for proposal development
- Raptor RFP is open to all DOD contractors (NOFORN)
- Award of contracts planned for 2 Jan 03
- 32 month contract
- Up to two contractor awards may be placed

# Raptor Program Update

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- **White Paper Process resulted in 4 contractors being selected for Purchase Orders awards of \$100k each**
  - SAIC
  - BAE
  - TRW
  - GD